

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

VEGETATIVE BARRIERS

(Ft.)
Code 601

DEFINITION

Herbaceous vegetation established in strips or rows at determined intervals across the slope.

PURPOSES

(1) To reduce erosion by water; (2) to slow runoff flow; (3) to entrap sediment on the slope; (4) to produce forage and other vegetative materials, and (5) increase water infiltration.

CONDITIONS WHERE PRACTICE APPLIES

On land subject to water erosion or where movement of soil constitutes a resource concern.

CRITERIA

The following criteria, unless noted, applies to all purposes of this practice.

1. Criteria for the placement of the vegetative row barriers:

a. Maximum slope to be established with vegetative row barriers is 50%.

b. The spacing along the horizontal distance of the slope shall be as follows:

<u>Ave. Field Grade</u> (Percent)	<u>Maximum Spacing</u> (Feet)
11 or less	40
12 - 24	35
24 - 40	25
41 - 50	20

c. Barriers will be established at intervals across the slope as nearly as possible to the contour.

d. Drainage ways will be left undisturbed except for elimination of undesirable plant species.

2. Criteria for establishment of vegetative barriers:

a. Land preparation for planting vegetative barriers will be done when adequate soil moisture is available to remove brush and weed vegetation with minimum soil disturbance.

b. Vegetation must be established before erosive rainfall occurs during the months of May, June, October and November.

c. Fertility of the soil must be amended if needed to meet the nutritional requirements of the vegetative barrier species. Follow guidance of soil test recommendation or forage establishment found in Pasture and Hay Planting Conservation Practice (Code 512).

d. Species must be adaptive to the site. Select species from Table 1. Other species may be considered if they possess the desired vegetative barrier traits. For species selection, see table Conservation Plants and Their Uses (USDA-NRCS, P.R. & USVI), filed in Section II of the FOTG.

e. Planting rate and plant density shall conform to Table 1.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

3. Criteria for operating and maintaining the vegetative barrier:

a. Delay cutting of vegetative barrier if density of the specific species has been attained. Barrier height and stem density shall conform to Table 2. (This material could be deposited as mulch at the upper edge of the barrier).

b. Minimum stubble height after cutting shall conform to Table 2.

c. Frequency of vegetation cutting shall be determined by onsite needs. Guidance to vegetation cutting frequency for each species is given in Table 2.

d. The formation of seeds on the barrier vegetation is to be discouraged. Vegetation will be cut on a maintenance schedule to prevent seed formation.

e. Vegetative growth will be contained within the barrier row. Tillage or other mechanical or chemical control will be used to control vegetative growth outside the barrier row.

f. Maintenance of barrier after damage will be performed (excess sediment removal, repair of gullies, planting replacements) as needed.

OPERATION AND MAINTENANCE

Development of rills and small channels within filter areas must be minimized. Needed repairs must be made immediately to reestablish sheet flow. A shallow furrow on the contour across the filter can be used to reestablish sheet flow. Vegetation must be maintained in a vigorous condition. If livestock have access to the filter

area, it must be fenced to control grazing.

PLANNING CONSIDERATIONS

1. Evaluate slope, soil, esthetic landscape, growth, development characteristics, and fire hazard before designing the vegetative barrier.

2. Adjust row barrier spacing and orientation to conform to plant row spacing and equipment size.

3. Select species for forage production as a secondary requirement to runoff and sediment control.

4. Establish companion strip of vegetation, and/or mulch, during establishment of vegetative barrier to provide protection against sediment and concentrated flow.

SPECIFICATION GUIDELINES

The following information must be provided to the land user for the establishment and maintenance of the practice: selected species, planting spacing, planting method, fertility needs, row grade, site preparation, maintenance requirements, and any other important factor. This information should be included in the conservation plan practice narrative.

DOCUMENTATION

The minimum notations to ascertain that the vegetative barrier has been successfully implemented, such as spacing, species, row grade, planting date, cost of material and any other important information must be documented in the conservation plan.

TABLE 1**SHALLOW, MODERATELY DEEP AND DEEP SOILS IN HUMID AREAS**

Species and habitat growth	Type of Planting	Row Spacing (inches)	Within row spacing (inches)	Minimum Size of Planting Stock (nodes/stem or inches)
Vetiver (bunch)	Single row		2-4	8 inches
Guineagrass (bunch)	Double rows (alternated)	6	6	8 inches or 2 nodes/stem
Napiergrass (bunch)	Double rows (alternated)	6	6	2 nodes/stem
Mott elephant grass	Single/double rows	6	6	8 inches

SHALLOW, MODERATELY DEEP AND DEEP SOILS ON SEMIARID AREAS

Species and habitat growth	Type of Planting	Row Spacing (inches)	Within row spacing (inches)	Minimum Size of Planting Stock (nodes/stem or inches)
Vetiver (bunch)	Single row		2-4	8 inches
Guineagrass (bunch)	Double rows (alternated)	6	6	8 inches or 2 nodes/stem
Napiergrass (bunch)	Double rows (alternated)	6	6	2 nodes/stem

FORAGE USE

Species and habitat growth	Type of Planting	Row Spacing (inches)	Within row spacing (inches)	Minimum Size of Planting Stock (nodes/stem or inches)
Guineagrass (bunch)	Double rows (alternated)	6	6	2 nodes/stem
Merkergrass (rhizomatous)	Single rows		6	2 nodes/stem
Mott elephant grass	Single/double rows	6	6	8 inches

TABLE 2

Species	Desired Barrier Height (inch)	Desired Barrier Density (pl/Ln. ft)	Minimum Stubble Height (inch)	Cutting Frequency (days)	Maintenance Frequency (minimum) (days)
Vetiver	24	12-24	18	90	90
Guineagrass	24	12-24	10	30	90
Napiergrass	24	12	18	50	90
Merkergrass	24	12	18	50	90